What is claimed is:

1. A component tape feeder for supplying pocket tape having components contained therein and a cover tape affixed to a top surface of the pocket tape for retaining the components therein, the component tape feeder comprising:

a tape guide having a peel edge to facilitate the removal of the cover tape from the top surface of the pocket tape before the components reach a pick-up location;

a component tape drive for engaging the pocket tape and advancing said components through said tape guide;

a folding pulley for encouraging at least one longitudinal fold to be formed within the cover tape once removed at the peel edge;

a cover tape drive;

a motor for powering at least one of said component tape drive and cover tape drive; and

a cover tape reservoir for receiving folded cover tape therein.

2. The component tape feeder of claim 1, wherein the folding pulley comprises two inwardly inclined flanges, having an undercut between each of said inclined flanges and a pulley hub.

3. The component tape feeder of claim 1, further including a control unit associated with the component tape drive, said control unit receiving a signal from said component tape drive indicating the amount of cover tape advanced, wherein the control unit calculates, as a function of the amount of cover tape advanced through said tape guide, the remaining cover tape capacity of the reservoir.

4 The component tape feeder of claim 3, wherein the control unit further provides a reservoir fullness gauge by calculating the state of fill of the cover tape reservoir as a function of the amount of cover tape advanced.

5. The component tape feeder of claim 3, further including a sensor for sensing the displacement of the component tape advanced, wherein the control unit receives an input from the motion sensor and calculates the length of tape advanced.

6. The component tape feeder of claim 1, further including a control unit and means for measuring a force required to deposit the cover tape into the cover tape reservoir and providing a signal thereof to the control unit, wherein the cover tape reservoir fullness is estimated by the control unit as a function of the force required to deposit cover tape into the cover tape reservoir.

7 The component tape feeder of claim 6, wherein the means for measuring a force measures the current drawn by a motor operatively engaged to the cover tape drive, where the current is employed to estimate the remaining capacity of the cover tape reservoir.

8 The component tape feeder of claim 1, wherein said cover tape reservoir has at least one interior surface that is treated so as to reduce the frictional force between the interior surface and the cover tape.

9. The component tape feeder of claim 1 wherein the interior surface finish of said cover tape reservoir includes a series of random grooves.

10. The component tape feeder of claim 1 wherein the interior surface finish of said cover tape reservoir is molded onto the surface.

11. The component tape feeder of claim 1 wherein the perimeter of the cover tape reservoir is defined by a curvilinear path.

12. The component tape feeder of claim 1, wherein the cover tape drive gears have a tooth profile that engages and corrugates the cover tape into segments.

13. The component feeder of claim 1, wherein the folding pulley is rotatably installed on a frame, and includes at least one channel with a predetermined shape and includes an associated splice deflector, said component feeder further comprising;

a pair of cover tape gears with the cover tape in a nip formed therebetween; and

a drive means for transferring a rotational force to the cover tape gears,

wherein the cover tape gears impart a tensile force to draw the cover tape into the folding pulley and thereby fold the edges therewithin.

14. The apparatus as claimed in claim 13, wherein said channel has at least two inwardly inclined flanges extending from the outer circumference of the pulley and narrowing toward a hub of said folding pulley.

15. The apparatus as claimed in claim 14, wherein the root of the channel formed by the two inclined flanges within the folding pulley are undercut between the hub and the inclined flanges.

16. The apparatus as claimed in claim 14, wherein the splice deflector is located betwen the inwardly inclined flanges and contacts the cover tape whenever a cover tape splice passes over folding pulley.

17. A method for handling cover tape detached from pocket tape, comprising the steps of:

folding the longitudinal edges of the cover tape inward to enclose within folded confines of the tape any residual adhesive, wherein folding the longitudinal edges inward increases the stiffness of the cover tape; and

corrugating the folded tape as it is pushed into a cover tape reservoir.

18. The method of claim 17, further comprising the step of monitoring the quantity of cover tape contained in the cover tape reservoir.

19. The method as claimed in claim 17 wherein the step of folding the cover tape comprises pulling the cover tape into a folding pulley including a channel having inclined flanges and at least one undercut between one of said inclined flanges and a hub.

20. The method as claimed in claim 14 wherein the step of corrugating the folded cover tape comprises passing the cover tape through a nip formed between a first cover tape gear and a second cover tape gear, each of said cover tape gears having a plurality of teeth in engagement.